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VOLUME XXXVI, NUMBER 1, OCTOBER 7, 1957 . . . *To Know This World, Its Life*

1 *A newly independent Malayan paints designs on a sarong with age-old skill*

► Malaya Gains Independence
► Raccoon Crime Wave
► Strange Sargasso Sea
► Grandest Canyon
► Brussels Builds a World's Fair

. . . Beginning the 36th year of bringing the world into the classroom —by means of lively, authentic text and dramatic, instructive National Geographic pictures such as the one above by staffman J. Baylor Roberts.

where power recently changed hands, Malaya is almost equidistant from the dense human masses of China and India. The nation is a prize of enormous potential riches. It hugs the principal air and sea routes to Australia, and thence to the United States. No wonder Soviet Russia eyes Malaya enviously.

Malayans have chosen to offer their wealth to the free world as the tenth member of the British Commonwealth of Nations. They are enormous producers of rubber and tin, vital to industry and defense stockpiles. Malayan rubber took root in 1877 from 22 Brazilian rubber seedlings sent out from London's Kew Gardens. Soon the nation became the largest source of natural rubber, the producer of nearly half the world's supply. As for tin, a third of world production comes from Malaya. The free world depends on both products.

But Malaya needs more than rubber and tin for self support. Large tracts of land are opening to needed rice production. One goal is the conversion of 26,000 acres of swamp jungle to rice fields. Coffee, coconut, cocoa, tea, palm oil, and pineapple production likewise expands.

Agricultural stations experiment with bananas, limes, rambutans, mangoes, hemp, jute, and pasture grass, forcing from the land more service for the new nation. Fishermen are schooled in boat engine maintenance and helmsmanship. They learn new techniques to catch the kempong, a small mackerel.

Lumber for domestic use falls to echoing axes in 12,500 square miles of forest reserve. Mining machines claw the warm earth for gold, iron, coal, bauxite, tungsten, titanium, kaolin, and columbium, all needed for export.

Even monkeys are put to work. They scamper, chattering, up trees to twist off coconuts (page 4). For wages the obliging creatures accept soda pop or other goodies. They ride on bicycles with their owners, raising quick Malayan smiles from bystanders. Leashes restrain the beasts from taking banana-breaks in the jungle. There, they might easily fade from sight. For Malaya's jungles are so dense that even wild animals wander trails bulldozed by vagrant elephants. Only a foolish man would build his house beside the elephant's fixed travel routes.

Malayans Form a Nation

Photographs by National Geographic Photographer J. Baylor Roberts

PRIMITIVE drums throbbed at the news. At midnight, August 31, 1957, Malaya's *merdeka* (freedom, independence) was born. In Kuala Lumpur, the capital (below), a band struck up "God Save the Queen." The British Union Jack slid down. The Federation of Malaya's flag with red and white stripes and a blue field fluttered up. The British High Commissioner stepped aside. A newly installed "king and ruler," Tunku Abdul Rahman, took control with his ministers.

The new Malayan government faces a ticklish task, for the former British colony lies in the Far East tinderbox. Southern neighbor of Thailand (Siam),

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ber Research Institute of Malaya (right) at Kuala Lumpur, scientists use modern equipment to measure the stretch of vulcanized rubber samples—a test of quality. In contrast, wide-hatted countryfolk, below, use relatively primitive means to pan for tin ore.

Chinese, true to national traits, manage shops and other enterprises. An estimated four-fifths of Malaya remains to be explored economically.

Japanese conquerors prostrated Malaya in World War II. Afterwards returning Englishmen found more and more Malayans thinking of political freedom. Britain moved to weld Malayans and Chinese into amiable partnerships in a Malayan nation. Communist terrorism actually helped, drawing the races together into a defensive posture, a national cohesion. Tunku Abdul Rahman, observers believe, attracts both Malay and Chinese support. Were preponderantly Chinese Singapore to join the Federation of Malaya, Chinese would probably dominate the country.

But though Singapore is still the main gateway to the Federation, the island city is not due to achieve self-rule for another year. It will then, probably, remain a British dependency for some time.

Tourists spurred by the era of fast distance travel should help fatten Malayan coffers. Travelers like countries bursting at the bounds with free energies and good scenery. Right now they may see much of Malaya as she was when traders and travelers followed the sea routes between India and China in the early Christian era. Trackless evergreen jungle covers around 40,000 of the country's 50,000 square miles. Trees form skyless roofs of green 100 feet above the earth.

Such is the world's newest independent nation, the newly admitted 82nd member of the United Nations. Its people hold Great Britain in warm regard because of the promptness with which the British fulfilled their promise of *merdeka*. This friendship is returned. The Federation's future looks bright to a former British High Commissioner. "There is a restless spirit abroad in Malaya today—the spirit which makes men want to build. It is a young nation waking up and getting ready to take its place in the world."—S.H.

National Geographic References: ***Map***—Southeast Asia (paper, 75 cents; fabric, $1.50). ***Magazine***—February 1953, "Malaya Meets Its Emergency" ($1.00). ***School Bulletins***—November 24, 1952, "Malaya Establishes National Citizenship" (10¢).

More dangerous than beasts are fanatical communist terrorists secluded in jungle hideouts, armed for quick, brutal raids. They number an estimated 1,800 —remnants of many thousands spawned by the Malayan Communist Party movement of the early 1920's. After World War II, they struck at rubber plantations and Malaya's jungle-dwelling aborigines. But authorities established helicopter-supplied jungle forts where the aborigines might go for food and help. Now most emergency restrictions have been relaxed. The mountainous state of Pahang, an original stronghold for terrorists, is largely cleared of them.

To keep Malayans at home, at work, and out of the terrorists' way, 600,000 squatters were removed from isolated fringes of jungle into 500 new villages. Strange horizons opened. The miracles of medicine came, and education. There lay a strange world of markets, drains, wells, and community centers. Radios blared and movies flickered. Youngsters joined scout and girl guide movements.

Visit a typical new village. You'll find 700 happy inhabitants, 115 wooden houses with electricity and water. Grunting hogs, clucking poultry mean good meals ahead. The new village of Batu Lima accommodates 450 Chinese—familiar racial faces in Malaya. Many were former rubber tappers. Now they raise vegetables or hogs, a sure livelihood. One five-year-old village claims 13,000 inhabitants. Three Chinese schools wring the three R's from 1,500 children, tomorrow's independent Malayans.

A diamond-shaped peninsula at the southernmost tip of the Asian mainland, Malaya has become a melting pot of races. Chinese immigrants now number about two-fifths of the population. Hundreds of thousands of Pakistanis and Indians help form the conglomeration. Aborigines number about 60,000, remnants of the tribes which were here before the Malays. Deep in the jungle's green concealment, tree-dwellers and pygmies use blowguns and poison darts. And city sidewalks feel the stride of Europeans.

Rubber plantations first brought in the waves of immigrating Chinese and Indians. Now the population of Malaya exceeds 6,000,000, according to estimates. Since the area is about the same as that of New York State, Malayans have plenty of elbow room.

The races mingle well. For example, a recent production of *Macbeth* used an English Macbeth, a Malay Macduff, a Chinese Lady Macduff, and an Indian Angus—all in Malay costumes.

Many Malayans fish and farm for livelihoods. Indians and Chinese mostly find work with tin and rubber. At the Rub-

ber Research Institute of Malaya (right) at Kuala Lumpur, scientists use modern equipment to measure the stretch of vulcanized rubber samples—a test of quality. In contrast, wide-hatted countryfolk, below, use relatively primitive means to pan for tin ore.

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LILO HESS, THREE LIONS

ALAN B. STEBBINS, BLACK STAR

next morning there'd be coon tracks everywhere.

Mother used to send us up trees when danger was near. She'd fight anything that walked or flew if we were cornered. Coons are like that—brave. I wasn't scared of this big dog, for example. I only woke him up to remind him that our family name is *Procyonidae*, which means "before the dog." He didn't take it at all well. "Don't you get uppity with a watchdog, you . . . you delinquent!" he snarls. Watchdog! Now he tells me.

I tried to explain that coons are true-blue Americans, that we don't live on other continents, and that one of my ancestors was Davy Crockett's cap.

But here I am in the pokey. All because I was behaving like any red-blooded, American raccoon.—J.A.

UMI

LILO HESS, THREE LIONS

MY LIFE IN CRIME

By "Rackets" Raccoon

A light-fingered, masked intruder from the night jimmies the door, raids the icebox, accidentally arouses the watchman, and ends up in jail.

From the door of his cell he tells all. . .

LILO HESS, THREE LIONS

I still say it was entirely those people's fault. They left the kitchen door ajar. I'm as curious as the next raccoon, so. . .

All that fuss. Anyone would think I'd jimmied the lock at Fort Knox instead of simply opening a refrigerator.

Those leftovers on the bottom shelf didn't taste bad. We coons eat about anything —frogs, salamanders, eggs, fruit, nuts, and grains. And if humans want to feed us ice cream, cheese sandwiches, or soft drinks, we're delighted—even though those things sort of come apart when we dip them in a stream. We dunk all our food before eating it, you know.

In fact, coons like water. We're great swimmers and fishers. I recall tagging behind mother with my brothers and sisters. We'd pad along the lake shore when the moon was silvery on the water and

like air sacs prevent the weed from sinking. But gulfweed doesn't hinder ships. Even when continuously matted on the surface, it lies no more than half an inch thick. Prows part it without effort and sailors often grow fond of the faint, whispering rustle of gulfweed.

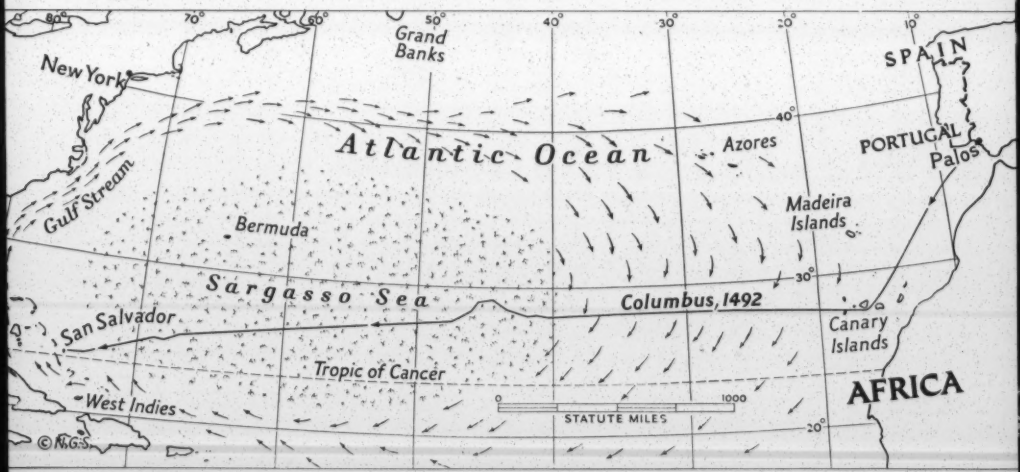
Centuries ago, scholars associated the Sargasso Sea with the fabled Lost Continent of Atlantis. Superstition tenanted the area with sea monsters. Sailors thought the weed held all the derelicts of ocean disaster. But it is merely the drifting home of small pelagic animals, and of marine predators anxious to eat them.

Three-mile depths, roofed by the weed, conceal the breeding area of eels. These squiggly fish stray thousands of miles up rivers and creeks of America and Europe—as far as the Allegheny Mountains and the Alps. Mysterious urges tug them back to the Sargasso Sea to lay their eggs. So compelling is the call of the Sargasso that eels cross wet meadows and flip-flop around dams to escape seaward. Far out in the Sargasso the young are hatched, tiny creatures so transparent a book can be read through them.

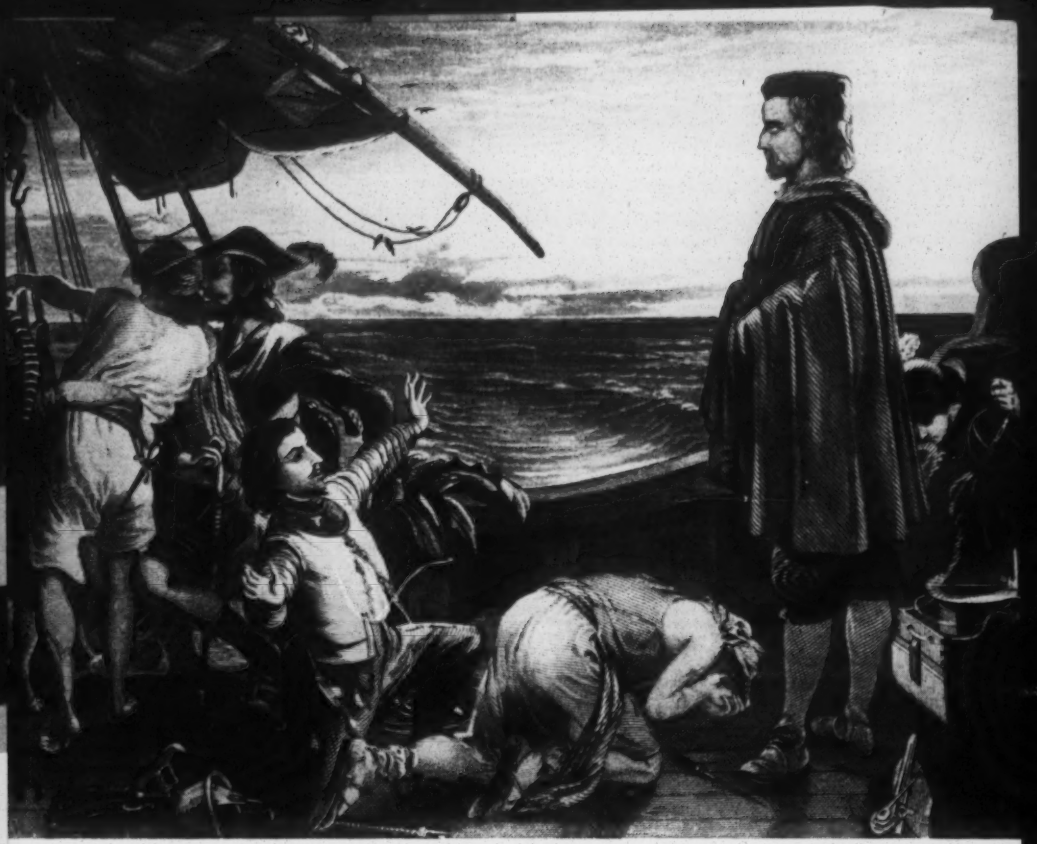
Nature camouflages Sargasso's slugs, crabs, and shrimp to resemble surrounding seaweed. One fish amazingly mimics the air sacs and encrusting worm tubes of the weed. The fish is so strange that one expedition baptized a specimen "My Word." That was what a scientist exclaimed when he first saw one.

The Sargasso serves as nursery for tiny infants of ocean giants—sailfish, jackfish, bonito, and sunfish. Other youngsters will grow only a few inches. Abundant little frogfish cannibals chomp their enormous jaws. An expedition placed some of these in a basin containing greater-prized specimens. Soon the specimens were gone. Frogfish stomachs were opened. Out swam the lucky Jonahs, uninjured.

Columbus theorized that the Sargasso's weed was wrenched by storms from submarine ledges and rocks near the Azores. Science long pondered, then concluded that gulfweed is a perennial, constantly renewed by budding. Some of the plants Columbus saw may yet be alive.—S.H.



COLUMBUS was the first "oceanographer" to report on the Sargasso Sea. His precedent has been followed by many modern scientists. A great oval, spreading over some two million square miles, the sea is almost without currents—a giant backwater encircled by the Gulf Stream and the North Equatorial Current, shown by arrows pointing westward.



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Sea With No Shore

Strange Sargasso Baffled Columbus

Seamen groaned with despair at the sight of the yellow-green weed. Spreading like a meadow on the ocean surface, it seemed likely to ensnare the *Nina, Pinta,* and *Santa Maria.* At first it had raised hopes of a landfall. Now there seemed no end to it.

Eyes on the western horizon, Columbus refused to panic as he rustled through the weedy center of the Sargasso Sea. "Saw plenty weed," he scrawled in his journal day after day. And his men, growing used to the phenomenon, plucked some and found it held green crabs the size of a thumb nail.

Today, science still regards the Sargasso as a curiosity. Oval-shaped, it lazily rotates east and south of the mighty Gulf Stream, between the Azores and the Antilles, a sea within an ocean. Transplanted, it would nearly cover the European continent, or two-thirds of the United States. Its deep-blue water is clear, warm, and high in salt content.

Largest mass of sargassum, or gulfweed, lies within the sea's middle confines. There it trembles in disjointed masses, some over an acre in size. Long strips of weed are scissored out by wind action, and roam at the whim of breezes. Grape-

The result strikes awe in every visitor. The breath-taking canyon bites a mile deep and averages 10 miles in width along its 217-mile length. Manhattan Island would vanish from sight in some of its pockets. If the 1,472-foot Empire State Building dipped its foundations in the Colorado River, its television tower would barely peek from the inner gorge.

This massive scar on the continent's face deflects all north and south highways and railroads. From Bright Angel Point on the North Rim, above, visitors look across some 10 miles of clear Arizona air and can distinguish objects on the South Rim. But to get there requires a drive of more than 200 miles or a two-day trip across the canyon by muleback. The strongest nerves tingle as mules feel their way down Bright Angel Trail, leaning outward on sharp turns to give riders unobstructed views down thousand-foot abysses.

"Keep the reins in your hands at all times," say the guides. "Keep your feet in the stirrups and your mind in the middle."

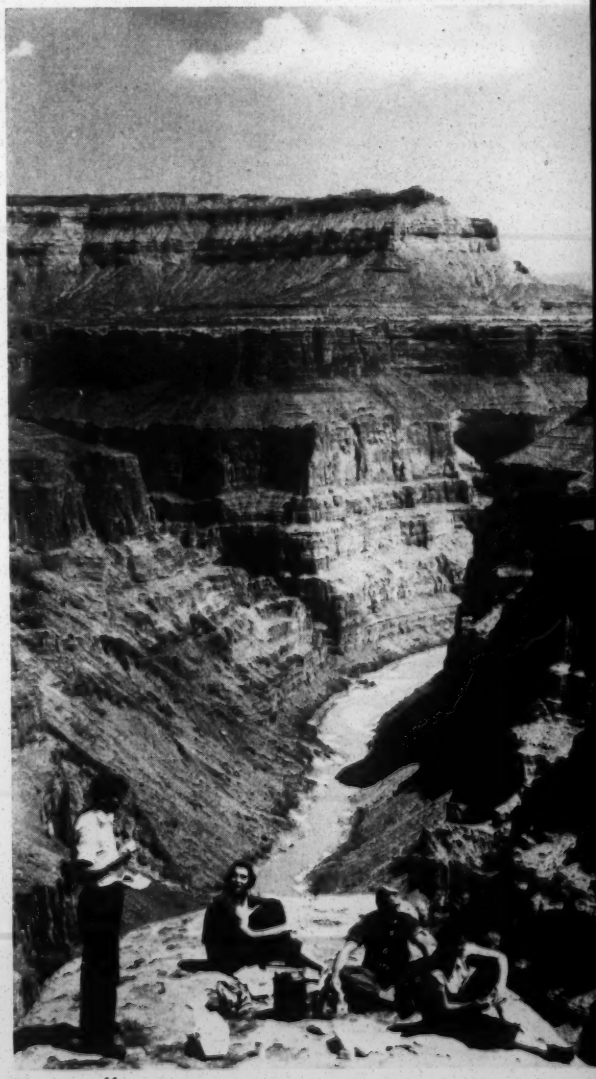
Tenderfeet wish they'd written their wills. But in more than half a century of service, no mule has lost a paying customer.

The trip offers rich rewards. Shifting sun rays paint the rocks with ever changing colors. Various strata have their own shades —yellow, pink, blue-gray, red. Evening tints the depths with alpenglow.

As mules jolt down into the inner gorge, where the Colorado rushes (right), riders pass dark Pre-Cambrian rocks, formed some 1,500,000,000 years ago. Higher strata display fossils that trace the history of earth's life from the primitive to the complex.

A party of gold-seeking Spaniards led by Don García López de Cárdenas first stumbled on the Grand Canyon 67 years before Jamestown was settled. But man still has not explored all its niches, side canyons, buttes, and pinnacles.—

UNION PACIFIC RAILROAD



National Geographic References: *Magazine*—May 1955, "Grand Canyon: Nature's Story of Creation" ($1.00).

UMI

UNION PACIFIC RAILROAD

Grandest Canyon

LAST summer, many a vacationing English teacher looked on the Grand Canyon. Few could think of words adequate to the stupendous sight. The remark attributed to a wide-eyed cowboy remains as descriptive as any. "Wow! Something sure happened."

It happened, all right. Some millions of years ago, northern Arizona lay barely above sea level, sliced by the ancestral Colorado River. Then the land began rising to form an immense plateau. As the earth lifted, the torrent cut into it. Using boulders, gravel, silt, and sand, the Colorado ground out its bed. Erosion, cracking frosts, and scouring winds widened and sculptured the gorge.

Belgian workmen, laboring among girders, right, are putting together a 59-foot "atom." With eight other spheres, it will form the Atomium, below. This towering reproduction of a metal crystal will trademark the Brussels World's Fair, first such event in 19 years.

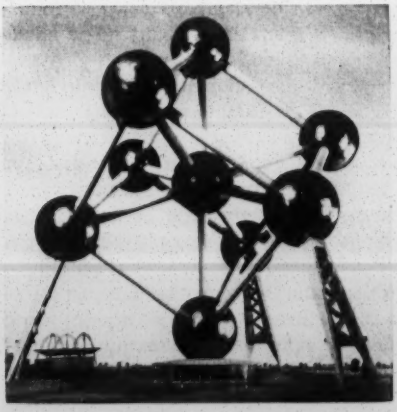
Today's school population, unborn at the time of the New York World's Fair of 1939, may think the Belgians have come up with something new. But their teachers know that many international expositions have highlighted the modern world's achievements for more than a century.

Brussels World's Fair

Every world's fair has its theme, symbolized by architectural design. In 1851, London marveled at the Crystal Palace, a massive glass and iron example of British structural engineering. In 1939 the Trylon and Perisphere loomed on the outskirts of New York, marking the "World of Tomorrow."

Now, after nearly two decades of hot and cold war, the world will draw breath to look at itself at the Brussels World's Fair. The "Tomorrow" of 1939 has arrived. With an atomic structure as its symbol, the fair of 1958 will open April 17 proclaiming a new theme—faith in man's ability to shape the atomic age to the benefit of all.

Forty-eight nations are turning to Brussels and erecting showcases for their industrial, scientific, and cultural accomplishments. Participants rank in size from tiny Monaco to the United States and the Soviet Union. Daringly modernistic buildings of steel, aluminum, plastics, and glass are taking shape on 500 acres a few miles from mid-town Brussels.



Belgium's capital and largest city spruces up for an expected 35,000,000 visitors. Helicopters and new roads will help bring them to Brussels. Shopkeepers look forward to boom times. Townsfolk are polishing foreign languages so they can play host to the guests.

Mostly, though, the sight-seers will eye the displays and gape at the 360-foot Atomium. They will be able to enter it, to ride through its tubular passages on elevators and escalators. Inside the "atoms," they will see exhibits of peaceful uses of atomic energy. In the topmost sphere they will find a restaurant with a spreading view of the city.—